

Colorado Basin Outlook Report June 1, 2001



Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

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How forecasts are made

Most of the annual streamflow in the western United States originates as snowfall that has accumulated in the mountains during the winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Measurements of snow water equivalent at selected manual snow courses and automated SNOTEL sites, along with precipitation, antecedent streamflow, and indices of the El Niño / Southern Oscillation are used in computerized statistical and simulation models to prepare runoff forecasts. These forecasts are coordinated between hydrologists in the Natural Resources Conservation Service and the National Weather Service. Unless otherwise specified, all forecasts are for flows that would occur naturally without any upstream influences.

Forecasts of any kind, of course, are not perfect. Streamflow forecast uncertainty arises from three primary sources: (1) uncertain knowledge of future weather conditions, (2) uncertainty in the forecasting procedure, and (3) errors in the data. The forecast, therefore, must be interpreted not as a single value but rather as a range of values with specific probabilities of occurrence. The middle of the range is expressed by the 50% exceedance probability forecast, for which there is a 50% chance that the actual flow will be above, and a 50% chance that the actual flow will be below, this value. To describe the expected range around this 50% value, four other forecasts are provided, two smaller values (90% and 70% exceedance probability) and two larger values (30%, and 10% exceedance probability). For example, there is a 90% chance that the actual flow will be more than the 90% exceedance probability forecast. The others can be interpreted similarly.

The wider the spread among these values, the more uncertain the forecast. As the season progresses, forecasts become more accurate, primarily because a greater portion of the future weather conditions become known; this is reflected by a narrowing of the range around the 50% exceedance probability forecast. Users should take this uncertainty into consideration when making operational decisions by selecting forecasts corresponding to the level of risk they are willing to assume about the amount of water to be expected. If users anticipate receiving a lesser supply of water, or if they wish to increase their chances of having an adequate supply of water for their operations, they may want to base their decisions on the 90% or 70% exceedance probability forecasts, or something in between. On the other hand, if users are concerned about receiving too much water (for example, threat of flooding), they may want to base their decisions on the 30% or 10% exceedance probability forecasts, or something in between. Regardless of the forecast value users choose for operations, they should be prepared to deal with either more or less water. (Users should remember that even if the 90% exceedance probability forecast is used, there is still a 10% chance of receiving less than this amount.) By using the exceedance probability information, users can easily determine the chances of receiving more or less water.

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COLORADO WATER SUPPLY OUTLOOK REPORT JUNE 1, 2001

Summary

May was a fairly dry and warm month across Colorado. As a result, the state's snowpack proceeded to meltout at a nearly uninterrupted pace. By June 1, the snowpack percentages are well below average in all basins. Even those basins across southern Colorado, which had near average accumulations this season, have melted to less than half of average for this date. This early meltout translates into earlier than normal peak flows, followed by an earlier than normal return to lower base flows in mid-summer. Reservoir storage continues to improve slightly and is now near average to above average in all basins.

Snowpack

In a similar fashion to last year's spring melt period, this year's snowpack melted rapidly and steadily through the month of May. Colorado's SNOTEL sites indicate the state's snowpack is now only 24% of average. This is the second lowest June 1 snowpack since SNOTEL records began in 1986. Only last year's snowpack was lower, at only 14% of average. The lowest snowpack percentages occur in the Gunnison and Colorado basins, both at only 18% of average. The South Platte Basin follows this, at 22% of average. The highest percentages were measured in the Rio Grande Basin, with 57% of average snowpack. The Arkansas Basin at 54% of average closely follows this. In comparison to last year, the current statewide snowpack is 177% of last year's. Although this may seem like a significant percentage, it becomes dramatic when considering the actual snowpack data. For example, this year's June 1 average SNOTEL water content is about 1.3 inches, while last year at this time it was only .75 inches. Neither year presents a significant snowpack. The most striking contrast between the two years is across southwestern Colorado. While last year's snowpack had melted out in early May, this year's snowpack is nearly 50% of average. The end of the 2001 snowpack season marks the end of four consecutive years of below average snowpack across the state.

Precipitation

Precipitation measured at SNOTEL sites across the state was generally below average during May. Only two basins, the South Platte at 103% of average, and the Arkansas at 100%, recorded average to above average monthly totals. While no basins reported extremely low totals for the month, they range from 82% of average in the Colorado and Yampa and White, to 93% in the Gunnison Basin. Statewide, SNOTEL precipitation was

89% of average. Water year totals, now for the eight months since October 1, are remain generally below average across most of the state. Only the southwestern portion of the state is above average. Both the Rio Grande and the combined San Juan, Animas, Dolores, and San Miguel basins are reporting 106% of average water year totals. The remaining basins range from 85% of average in the Yampa and White, and the Colorado basins, to 96% if average in the Arkansas Basin. Statewide, the water year total now stands at 93% of average. While 2001 may seem like a dry year to many Coloradoans, our conditions are far better than those states north and west of us. Some locations in these states are seeing record low precipitation totals along with significant growing season impacts.

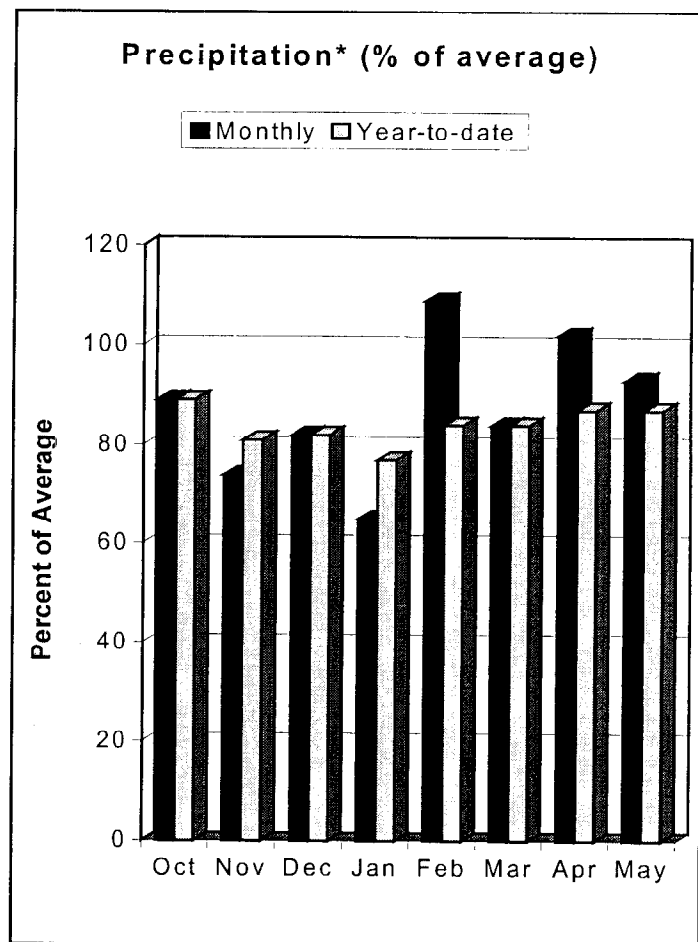
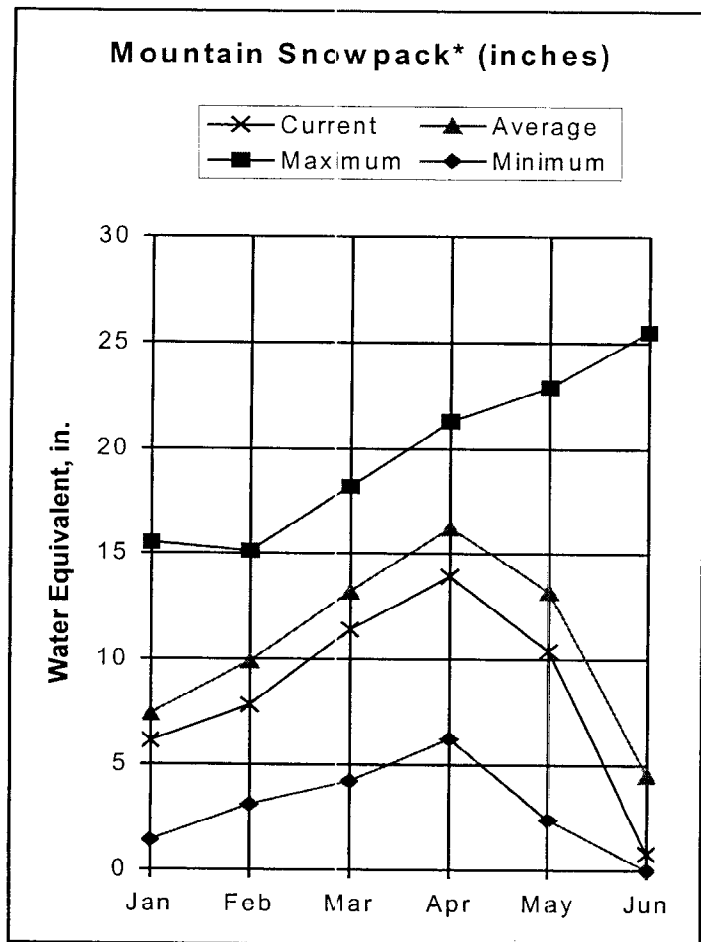
Reservoir Storage

Colorado's reservoir storage continues to slowly improve each month. Now, the state's reservoir storage is 115% of average. This is the highest percent of average volume since last July 1, but is 84% of last year's storage on June 1. Storage is above average in all basins except the South Platte, at 96%, and the San Juan, Animas, Dolores, and San Miguel, at 95% of average. The highest volumes, as a percentage of average, continue to be reported in the Arkansas Basin at 165% of average. This year's volumes remain lower than last year in all basins except the Yampa and White, at 103% of last year, and the Rio Grande, at 106% of average. This most significant aspect of reservoir storage for most water users is this year's volume as compared to last year at this time. Current statewide storage is at 3,972,300 acre-feet, while last year's total volume on this date was 4,762,800 acre-feet. The difference being nearly 790,000 acre-feet less water available to water users this year.

Streamflow

Dry weather during May has resulted in further reductions in the anticipated runoff across most of Colorado. Forecasts of less than 70% of average volumes now occur in the Yampa, White, North Platte, and most of the Gunnison Basin. Meanwhile toward the other extreme, most of the Rio Grande and San Juan basins are expected to flow at above average volumes this summer. A number of smaller tributaries in the Rio Grande and San Juan basins are also expected to produce near average volumes as well. The lowest forecasts, which range from about 45% to 60% of average, occur along many of the tributary streams in the Yampa, North Platte, and Cache La Poudre basins across northern Colorado. In addition, a number of tributaries in the Gunnison Basin are also expected to produce volumes in this range. In many respects this year's runoff is similar to that of last year. However, one significant difference in this year's conditions is the lack of surplus water stored in reservoirs. Should the state have another hot and dry summer as last year, many water users will face greater impacts than last year.

GUNNISON RIVER BASIN as of June 1, 2001



*Based on selected stations

Warm temperatures and drier than average conditions have melted the snowpack completely at most of the snow measuring sites in the Gunnison Basin. Only Park Reservoir, Red Mountain Pass, and Schofield Pass SNOTEL sites have measurable snow remaining on June 1, and the amount at each of the sites is extremely below average for this time of year. Basinwide the snowpack is only 18% of average, but even this meager amount is better than last year when there was no measurable snow left anywhere in the basin. Precipitation measured at the 12 SNOTEL sites in the basin was only 93% of average during May. The total precipitation received this water year is only 87% of average. The combined storage for 8 major reservoirs in the basin is 19% above average for this time of year. There is 11% less storage than last year on June 1. Nearly all of the streamflow forecasts for the Basin are significantly below average with the exception of Cochetopa Creek below Rock Creek, which is forecasted at 127% of average. The rest remain highly variable, ranging from only 50% of average at the Inflow to Paonia Reservoir, to 98%% of average on Lake Fork at Gateview.

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GUNNISON RIVER BASIN
Streamflow Forecasts - June 1, 2001

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Taylor River blw Taylor Park Resv	APR-JUL	40	55	65	66	75	90	99
Slate River nr Crested Butte	APR-JUL	61	67	71	80	75	81	89
East River at Almont	APR-JUL	90	111	125	68	139	160	183
Gunnison River nr Gunnison	APR-JUL	168	211	240	64	269	312	375
Tomichi Creek at Sargents	APR-JUL	11.4	15.9	18.9	57	22	26	33
Cochetopa Creek blw Rock Creek	APR-JUL	17.1	20	22	127	24	27	17.3
Tomichi Creek at Gunnison	APR-JUL	30	43	53	69	64	82	77
Lake Fork at Gateview	APR-JUL	90	108	120	98	132	150	123
Blue Mesa Reservoir Inflow	APR-JUL	315	416	485	69	554	655	699
Paonia Reservoir Inflow	MAR-JUN	35	43	50	50	57	68	101
	APR-JUL	35	45	48	46	58	70	104
N.F. Gunnison River nr Somerset	APR-JUL	108	132	150	52	169	199	288
Surface Creek nr Cedaredge	APR-JUL	6.3	7.8	9.0	56	10.4	12.9	16.0
Ridgway Reservoir Inflow	APR-JUL	64	73	80	82	88	101	98
Uncompahgre River at Colona	APR-JUL	72	88	100	79	113	133	126
Gunnison River nr Grand Junction	APR-JUL	514	720	860	59	1000	1206	1448

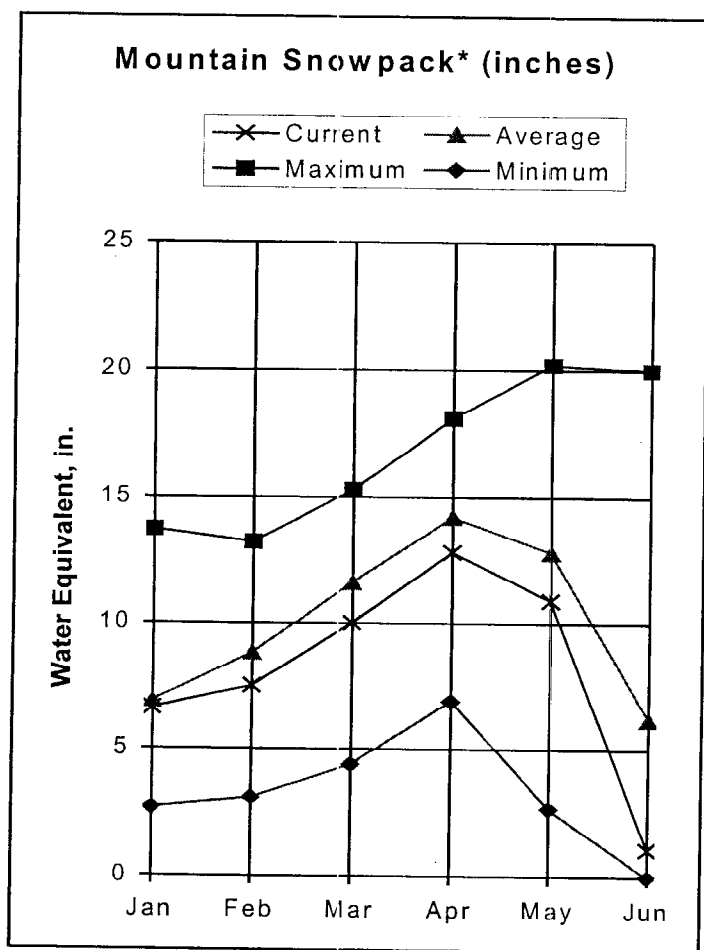
GUNNISON RIVER BASIN Reservoir Storage (1000 AF) - End of May					GUNNISON RIVER BASIN Watershed Snowpack Analysis - June 1, 2001			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
BLUE MESA	830.0	588.1	679.9	465.7	UPPER GUNNISON BASIN	9	0	9
CRAWFORD	14.3	9.9	12.2	12.7	SURFACE CREEK BASIN	2	0	2
FRUITGROWERS	4.3	4.2	4.2	3.9	UNCOMPAHGRE BASIN	3	0	44
FRUITLAND	9.2	5.3	5.5	6.0	TOTAL GUNNISON RIVER BASIN	12	0	18
MORROW POINT	121.0	114.0	113.9	110.7				
PAONIA	18.0	16.9	17.0	15.7				
RIDGWAY	83.2	75.3	83.1	67.0				
TAYLOR PARK	106.0	84.1	94.8	73.0				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

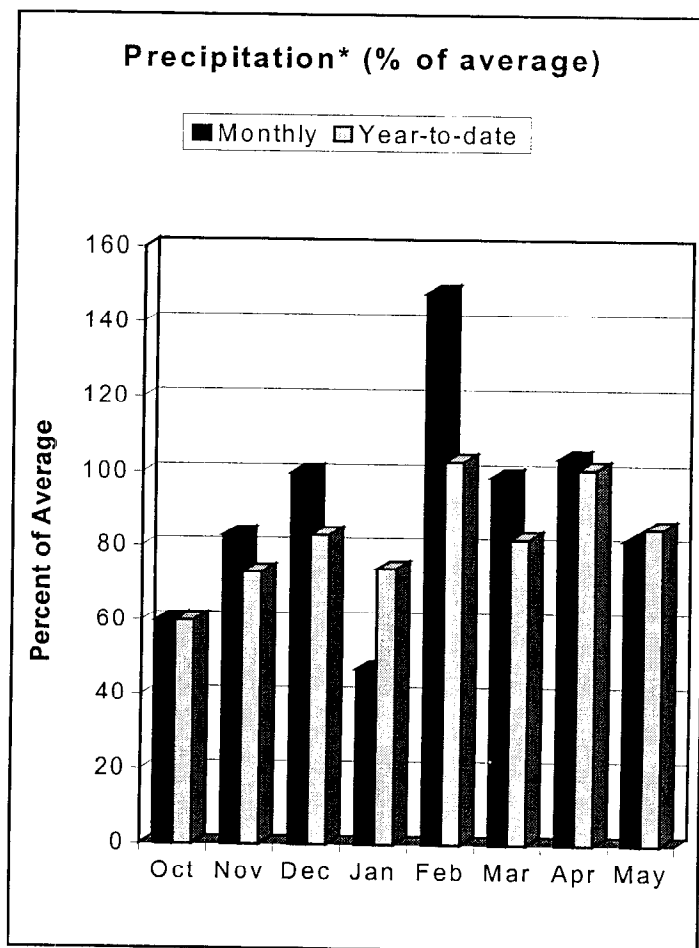
The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER COLORADO RIVER BASIN as of June 1, 2001



*Based on selected stations



Warm temperatures and below average precipitation have caused most of the measurable snow to melt away in the Colorado Basin. The few sites that continue to hold snow have very little remaining, and those will probably be completely melted before mid-June. Basinwide there is only 18% of the measurable snow on June 1. Although the snowpack is extremely low there is nearly twice as much now as there was last year at this time. Most of the remaining snow is in the Upper Colorado Watersheds where measurements are 22% of average. Precipitation in the higher elevations of the basin was only 82% of average during May, and the water year total is now 85% of average on June 1. The combined storage from 8 major reservoirs in the basin is about 16% above average on June 1, but this is only 82% of the storage amount last year at this time. Due to the rapid snowmelt and low precipitation during May, many of the streamflow forecasts have been adjusted slightly for the remaining runoff season. All of the forecasts remain below average, and range from only 66% of average at the Inflow to Willow Creek Reservoir, to 99% of average at the Inflow to Dillon Reservoir.

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UPPER COLORADO RIVER BASIN
Streamflow Forecasts - June 1, 2001

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Forecast Point	Forecast Period	<===== Drier ===== Future Conditions ===== Wetter =====>						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	Chance Of Exceeding *		30% (1000AF)	10% (1000AF)	
				50% (Most Probable) (1000AF)	(% AVG.)			
Lake Granby Inflow	APR-JUL	141	152	160	75	168	181	214
Willow Creek Reservoir Inflow	APR-JUL	22	29	33	66	38	46	50
Williams Fork Reservoir inflow	APR-JUL	67	75	81	92	87	97	88
E.F. Troublesome Creek nr Troublesom	APR-JUL	5.4	8.7	10.9	59	13.1	16.4	18.5
Dillon Reservoir Inflow	APR-JUL	122	139	150	99	161	178	151
Green Mountain Reservoir inflow	APR-JUL	212	234	250	95	266	292	262
Muddy Creek blw Wolford Mtn. Resv.	APR-JUL	38	44	48	75	53	60	64
Eagle River blw Gypsum	APR-JUL	194	220	240	77	261	296	310
Colorado River nr Dotsero	APR-JUL	832	1003	1120	82	1237	1408	1362
Ruedi Reservoir Inflow	APR-JUL	71	85	97	71	110	133	136
Roaring Fork at Glenwood Springs	APR-JUL	326	409	470	70	536	640	671
Colorado River nr Cameo	APR-JUL	1163	1483	1700	74	1917	2237	2287

UPPER COLORADO RIVER BASIN Reservoir Storage (1000 AF) - End of May					UPPER COLORADO RIVER BASIN Watershed Snowpack Analysis - June 1, 2001			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DILLON	250.8	234.9	254.5	217.8	BLUE RIVER BASIN	5	137	34
LAKE GRANBY	465.6	331.1	430.6	261.7	UPPER COLORADO RIVER BASI	16	168	22
GREEN MOUNTAIN	139.0	69.8	94.2	70.5	MUDDY CREEK BASIN	2	0	0
HOMESTAKE	43.0	18.2	40.2	16.9	PLATEAU CREEK BASIN	2	0	2
RUEDI	102.0	84.5	85.9	74.5	ROARING FORK BASIN	7	0	12
VEGA	32.0	32.9	33.2	26.8	WILLIAMS FORK BASIN	2	220	18
WILLIAMS FORK	96.8	68.0	87.0	51.1	WILLOW CREEK BASIN	2	0	0
WILLOW CREEK	9.0	6.5	8.3	7.4	TOTAL COLORADO RIVER BASI	25	195	18

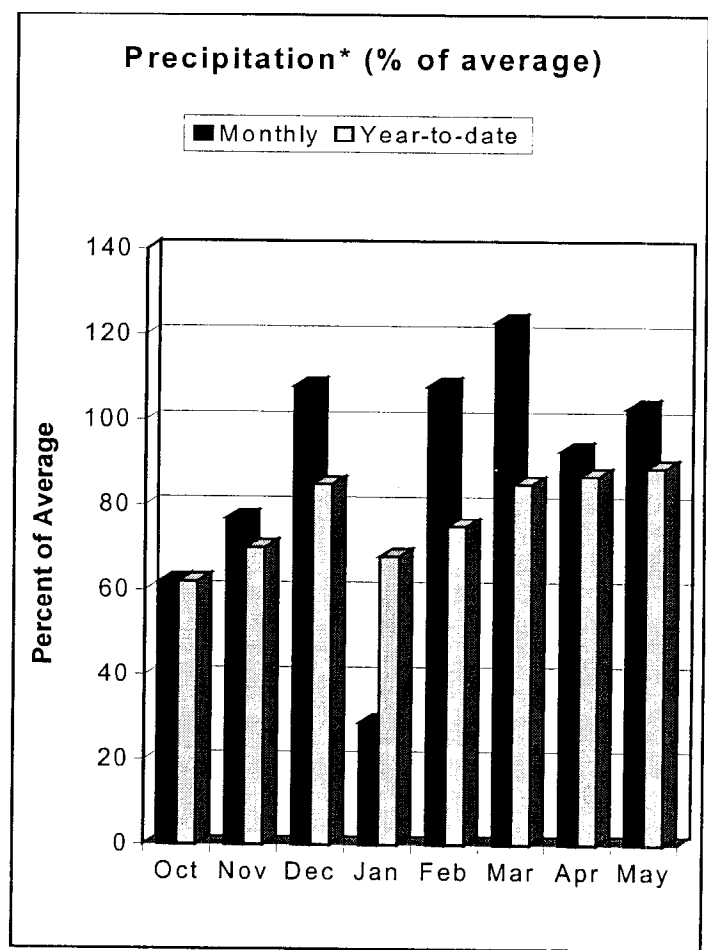
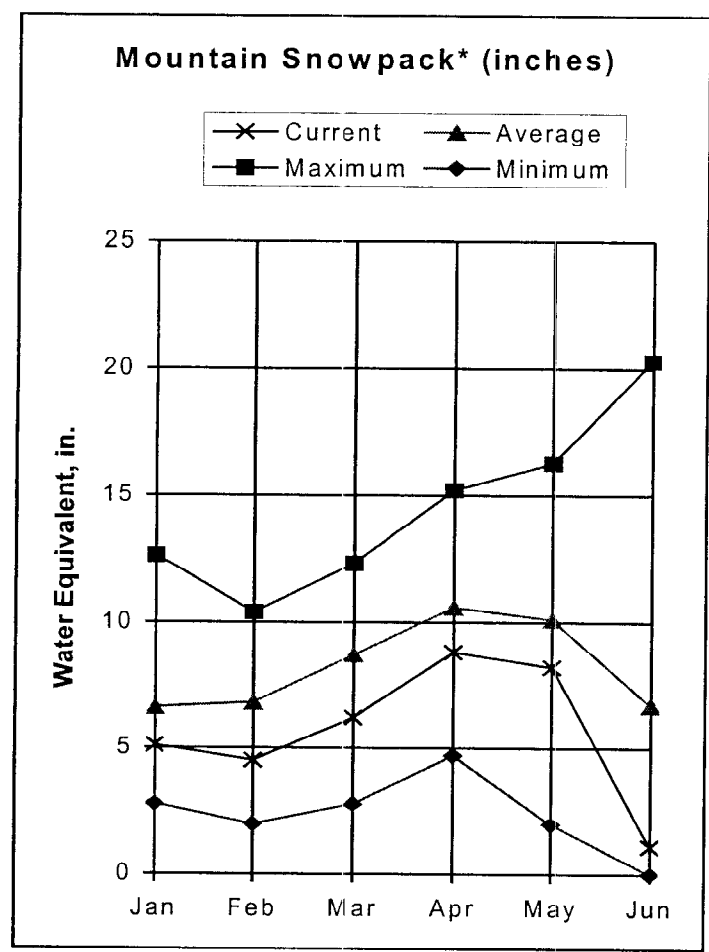
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* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural volume - actual volume may be affected by upstream water management.

SOUTH PLATTE RIVER BASIN as of June 1, 2001



*Based on selected stations

The snowpack in the South Platte Basin is rapidly disappearing, and what measurable snow remains will most likely be gone in early June. Basinwide snow measurements are at only 22% of average on June 1, which is about 8% less snow than last year at this time. The highest measurements are in the Clear Creek Watershed, where there is 43% of average snow accumulation remaining. The St. Vrain and Big Thompson watersheds have no measurable snow remaining. There was 103% of average precipitation during the month of May, and the water year total is at only 89% of average. The combined reservoir storage for 32 major reservoirs in the basin is at 96% of average on June 1. There is 4% less storage than last year at this time. As a result of the warm temperatures and rapid snowmelt, most of the streamflow forecasts have been reduced from last month for the remaining runoff season. All of the forecasts remain below average and range from 54% of average at the Inflow to Antero Reservoir, to 83% of average at Boulder Creek near Orodell.

SOUTH PLATTE RIVER BASIN
Streamflow Forecasts - June 1, 2001

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)
Antero Reservoir inflow	APR-JUL	3.4	4.9	6.3	54	8.0	11.5	11.7
Spinney Mountain Reservoir inflow	APR-JUL	16.8	22	26	68	31	40	38
Elevenmile Canyon Reservoir inflow	APR-JUL	12.9	20	25	66	30	37	38
Cheesman Lake inflow	APR-JUL	41	50	57	68	65	80	84
South Platte River at South Platte	APR-SEP	83	124	152	71	180	221	213
Bear Creek at Morrison	APR-SEP	16.5	22	25	83	29	34	30
Clear Creek at Golden	APR-SEP	74	87	96	75	105	118	128
St. Vrain Creek at Lyons	APR-SEP	41	53	61	78	69	81	78
Boulder Creek nr Orodell	APR-SEP	35	40	43	83	46	51	52
South Boulder Creek nr Eldorado Spri	APR-SEP	24	32	37	82	42	50	45
Big Thompson River at mouth nr Drake	APR-SEP	66	78	86	75	94	106	114
Cache La Poudre at Canyon Mouth	APR-SEP	101	133	155	57	193	250	272

SOUTH PLATTE RIVER BASIN
Reservoir Storage (1000 AF) - End of May

SOUTH PLATTE RIVER BASIN
Watershed Snowpack Analysis - June 1, 2001

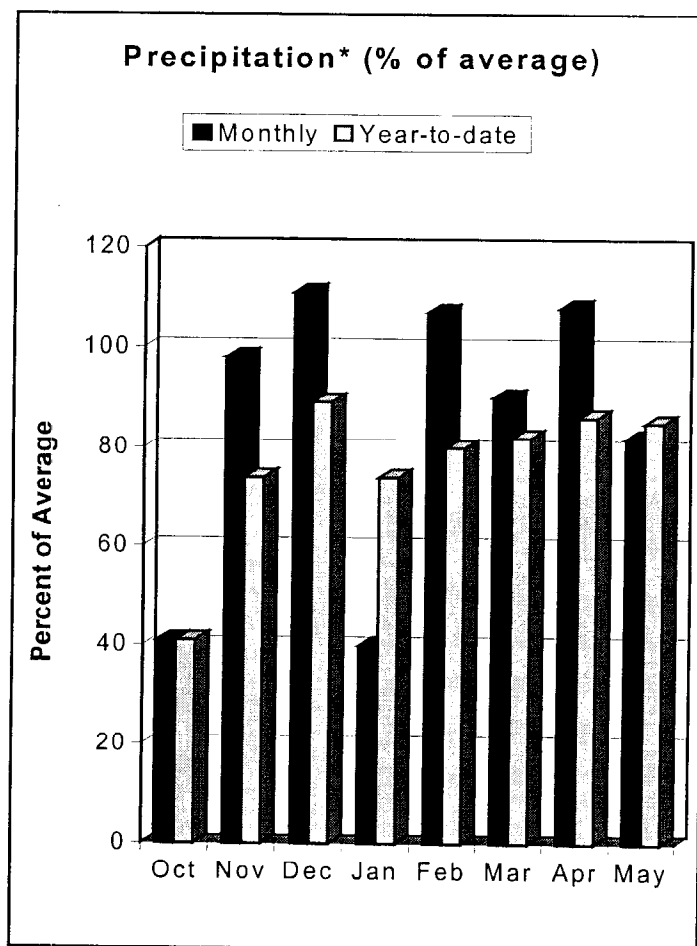
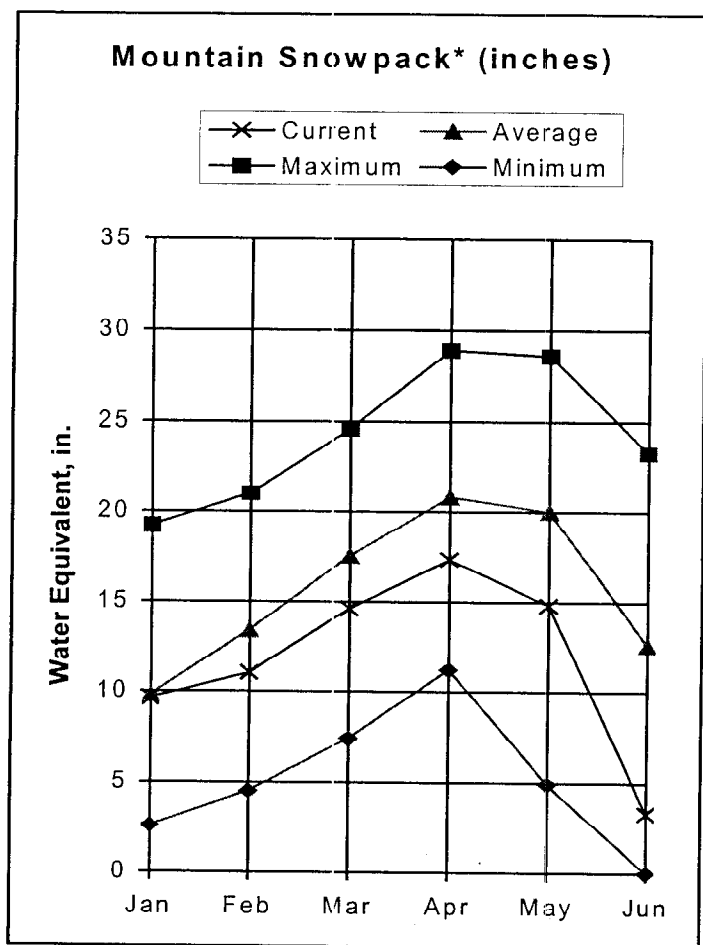
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ANTERO	20.0	20.0	20.0	14.8	BIG THOMPSON BASIN	3	0	0
BARR LAKE	32.0	29.8	33.3	25.8	BOULDER CREEK BASIN	3	148	24
BLACK HOLLOW	8.0	2.8	4.0	4.4	CACHE LA POUDRE BASIN	2	43	19
BOYD LAKE	49.0	36.4	43.5	40.3	CLEAR CREEK BASIN	2	148	43
CACHE LA POUDRE	10.0	10.2	10.0	8.8	SAINT VRAIN BASIN	1	0	0
CARTER	108.9	99.9	81.1	100.4	UPPER SOUTH PLATTE BASIN	6	1100	19
CHAMBERS LAKE	9.0	7.8	8.0	5.4	TOTAL SOUTH PLATTE BASIN	16	92	22
CHEESMAN	79.0	71.5	75.2	60.4				
COBB LAKE	34.0	11.5	17.5	14.5				
ELEVEN MILE	97.8	101.4	100.3	91.9				
EMPIRE	38.0	33.7	30.0	30.6				
FOSSIL CREEK	12.0	10.6	7.0	7.7				
GROSS	41.8	25.6	38.0	27.2				
HALLIGAN	6.4	6.4	4.5	6.1				
HORSECREEK	16.0	15.3	14.5	13.7				
HORSETOOTH	149.7	38.8	83.6	122.7				
JACKSON	35.0	26.1	25.0	32.3				
JULESBURG	28.0	17.6	16.1	22.9				
LAKE LOVELAND	14.0	12.1	12.2	10.7				
LONE TREE	9.0	8.7	8.5	8.2				
MARIANO	6.0	5.3	5.3	5.3				
MARSHALL	10.0	9.6	9.6	7.0				
MARSTON	13.0	17.7	11.0	8.9				
MILTON	24.0	22.5	36.7	16.7				
POINT OF ROCKS	70.0	70.6	60.0	64.1				
PREWITT	33.0	24.0	23.9	24.7				
RIVERSIDE	63.1	55.0	47.0	54.7				
SPINNEY MOUNTAIN	48.7	31.7	34.1	36.9				
STANDLEY	42.0	36.5	37.7	29.7				
TERRY LAKE	8.0	7.6	7.5	6.6				
UNION	13.0	12.5	12.6	11.5				
WINDSOR	19.0	15.1	16.5	13.4				

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual volume will exceed the volumes in the table. The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural volume - actual volume may be affected by upstream water management.

YAMPA, WHITE, NORTH PLATTE AND LARAMIE RIVER BASINS as of June 1, 2001



*Based on selected stations

Due to warm temperatures and low amounts of precipitation the measurable snow accumulation in these basins has rapidly diminished to nothing at most of the snow measuring sites. Measurements in the North Platte Basin are only 31% of average on June 1, and the measurements in the Yampa and White basins are no better, at only 29% of average. The White River Basin has the most promising snowpack remaining, at 51% of average, while the measurable snow in the Elk River Watershed is completely melted. There was only 82% of average precipitation in the higher elevations of these basins during May, and the water year total is now 85% of average. The combined reservoir storage in these basins is at 107% of average, which is about 3% more than last year at this time. Most of the streamflow forecasts are nearly the same as last month's forecasts. They are extremely variable depending on location and snowpack conditions, ranging from only 51% of average at Elkhead Creek near Elkhead, to 82% of average on the Yampa River above Stagecoach Reservoir.

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Streamflow Forecasts - June 1, 2001

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>		Chance Of Exceeding *				30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
North Platte River nr Northgate	JUN-SEP	56	76	89	56	102	122	158
Laramie River nr Woods	JUN-SEP	36	53	65	73	77	94	89
Yampa R abv Stagecoach Res	APR-JUL	14.6	23	28	82	33	37	34
Yampa River at Steamboat Springs	APR-JUL	153	185	200	73	215	246	273
Elk River nr Milner	APR-JUL	151	177	195	65	214	245	300
Elkhead Creek nr Elkhead	APR-JUL	14.0	17.3	20	51	23	29	39
ELKHEAD CREEK blw Maynard Gulch	APR-JUL	17.3	27	34	58	41	51	59
Fortification Ck nr Fortification	MAR-JUN	2.79	3.51	4.00	47	5.04	6.57	8.50
Yampa River nr Maybell	APR-JUL	455	581	645	68	709	843	947
Little Snake River nr Slater	APR-JUL	65	85	100	65	116	142	155
LITTLE SNAKE R nr Dixon	APR-JUL	106	168	210	64	252	314	329
LITTLE SNAKE R nr Lily	APR-JUL	111	176	220	62	264	329	358
White River nr Meeker	APR-JUL	126	165	185	66	208	246	279

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Reservoir Storage (1000 AF) - End of May

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Reservoir	Usable Capacity	*** Usable Storage ***		
		This Year	Last Year	Avg
STAGECOACH	33.3	32.0	31.0	30.5
YAMCOLO	9.1	8.5	8.5	7.2

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YAMPA, WHITE, AND NORTH PLATTE RIVER BASINS
Watershed Snowpack Analysis - June 1, 2001

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Watershed	Number of Data Sites	This Year as % of	
		Last Yr	Average
LARAMIE RIVER BASIN	2	68	16
NORTH PLATTE RIVER BASIN	3	76	37
TOTAL NORTH PLATTE BASIN	5	75	31
ELK RIVER BASIN	2	0	0
YAMPA RIVER BASIN	9	82	24
WHITE RIVER BASIN	4	183	51
TOTAL YAMPA AND WHITE RIV	12	101	29
LITTLE SNAKE RIVER BASIN	6	95	32

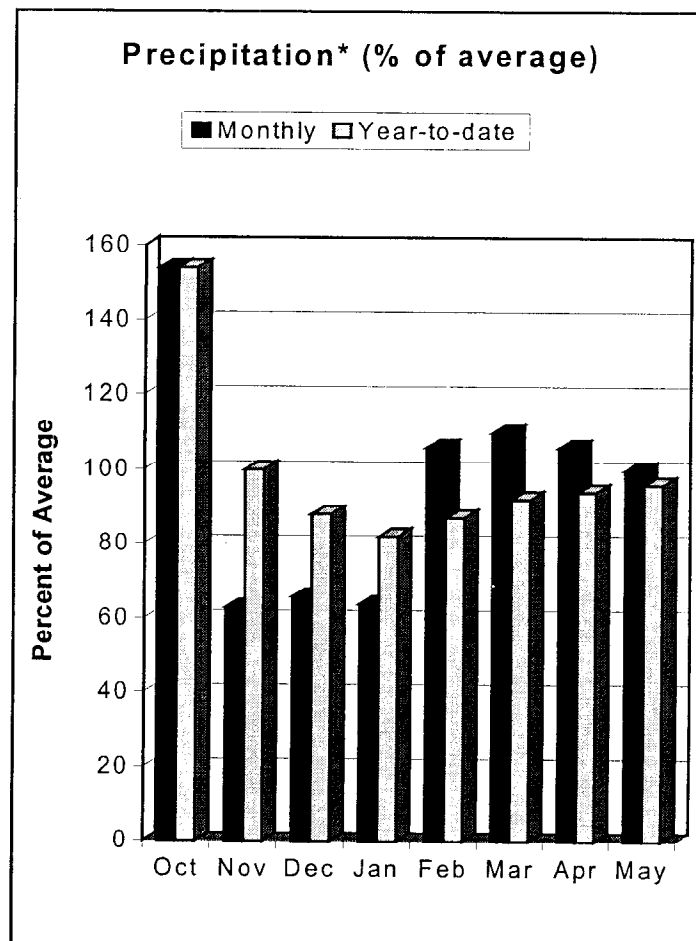
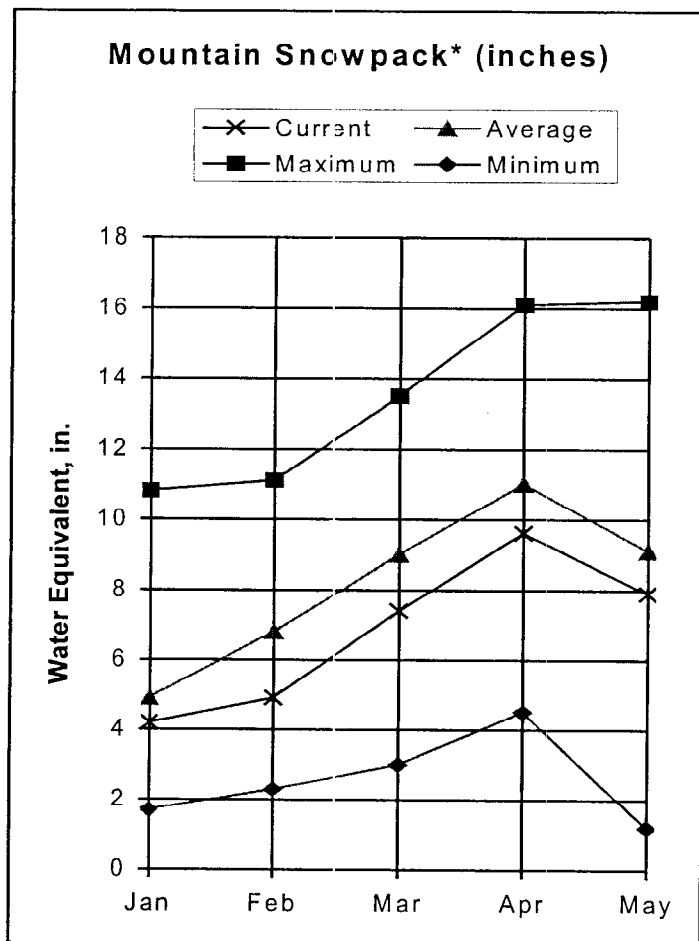
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The average is computed for the 1961-1990 base period.

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(2) - The value is natural volume - actual volume may be affected by upstream water management.

ARKANSAS RIVER BASIN as of June 1, 2001



*Based on selected stations

The snowpack measurements in the Arkansas Basin are at 54% of average on June 1, which is the second highest percent of average measurement in the state. Although warm temperatures have melted the snowpack significantly during May, the remaining amount is 76% more than last year at this time. Most of the snow in the basin is in the Cucharas and Huerfano watersheds, where there is 85% of average snow accumulation remaining. The measurable snow in the Purgatoire Watershed is completely melted. Precipitation in the high country was about average during May, and the water year total is now 96% of average. The combined storage among 12 major reservoirs is 165% of average for this time of year, but this is only 65% of last year's storage level. All of the streamflow forecasts are below average on June 1. Some have gone down significantly from last month, while others have remained nearly the same. They are highly variable depending on location and snowpack conditions, ranging from only 67% of average on Chalk Creek near Nathrop, to 83% of average on the Arkansas River at Salida.

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ARKANSAS RIVER BASIN
Streamflow Forecasts - June 1, 2001

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Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		-----		Chance Of Exceeding *		-----		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
Chalk Creek nr Nathrop	APR-SEP	8.2	14.9	19.4	67	24	31	29
Arkansas River at Salida	APR-SEP	187	222	245	83	268	303	297
Grape Creek nr Westcliffe	APR-SEP	6.1	10.9	14.2	71	17.5	22	20
Pueblo Reservoir Inflow	APR-SEP	227	277	310	79	343	393	394
Huerfano River nr Redwing	APR-SEP	9.2	10.9	12.1	81	13.3	15.0	15.0
Cucharas River nr La Veta	APR-SEP	4.0	7.2	9.4	72	11.6	14.8	13.0
Trinidad Lake Inflow	APR-SEP	13.3	24	32	74	40	51	43

ARKANSAS RIVER BASIN Reservoir Storage (1000 AF) - End of May					ARKANSAS RIVER BASIN Watershed Snowpack Analysis - June 1, 2001			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ADOBE	70.0	58.6	66.5	16.7	UPPER ARKANSAS BASIN	2	133	48
CLEAR CREEK	11.0	6.1	6.2	6.6	CUCHARAS & HUERFANO RIVER	1	1133	85
GREAT PLAINS	150.0	62.8	144.8	36.2	PURGATOIRE RIVER BASIN	1	0	0
HOLBROOK	7.0	6.3	5.6	3.5	TOTAL ARKANSAS RIVER BASIN	4	176	54
HORSE CREEK	28.0	0.2	27.6	5.9				
JOHN MARTIN	335.7	156.6	296.2	77.3				
LAKE HENRY	8.0	6.9	8.3	4.6				
MEREDITH	42.0	30.2	34.0	11.9				
PUEBLO	236.7	179.1	245.8	133.9				
TRINIDAD	72.3	33.3	64.1	31.1				
TURQUOISE	126.6	84.8	98.2	53.3				
TWIN LAKES	86.0	60.7	61.3	34.3				

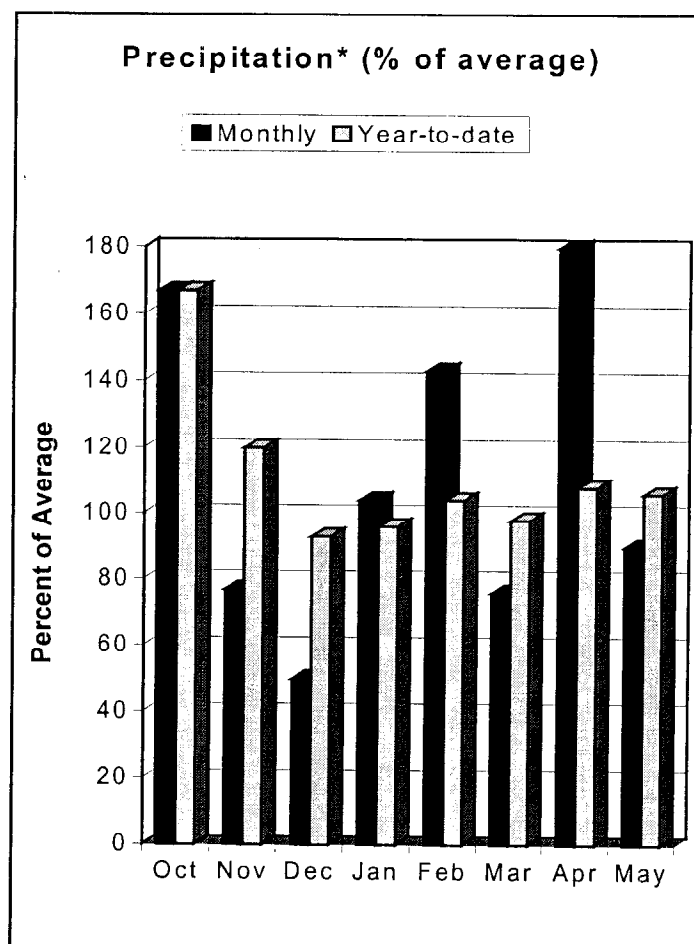
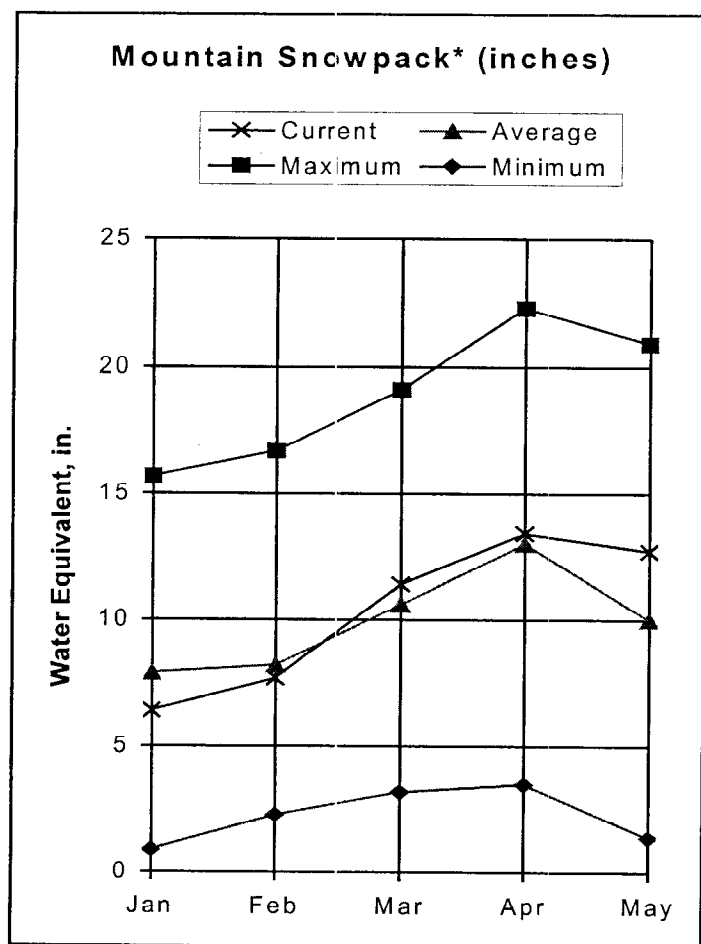
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The average is computed for the 1961-1990 base period.

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 (2) - The value is natural volume - actual volume may be affected by upstream water management.

UPPER RIO GRANDE RIVER BASIN as of June 1, 2001



*Based on selected stations

The snowpack measurements in the Rio Grande Basin remain the highest in the state on June 1. Warm temperatures during May have drastically reduced the amount of snow in the high country from 120% of average on May 1, to only 57% of average on June 1. Although the June 1 measurement is meager, it is over 75 times more snow than last year. Most of the remaining snow is in the Rio Grande Watershed above Del Norte, which has 59% of average accumulation at this time. Precipitation measurements in the higher elevations were 90% of average during May, and the water year total is now 106% of average on June 1. Reservoir storage has improved since May 1, and is about 41% above average for this time of year, and is 6% above the storage amount last year at this time. Stream forecasts for the remaining runoff season are very similar to last month for most of the forecast points, and most remain near to above average. Forecasts range from only 66% of average on the San Antonio River near Ortiz, to 132% of average on the Rio Grande at Wagon Wheel Gap.

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UPPER RIO GRANDE BASIN
Streamflow Forecasts - June 1, 2001

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		<----- Drier ----- Future Conditions ----- Wetter ----->						
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
Rio Grande at Thirty Mile Bridge	APR-SEP	154	163	170	128	177	187	133
Rio Grande Reservoir Inflow	APR-JUL	133	143	150	127	158	170	118
Rio Grande at Wagon Wheel Gap	APR-SEP	393	418	435	132	452	477	330
South Fork Rio Grande at South Fork	APR-SEP	146	154	160	121	166	174	132
Rio Grande nr Del Norte	APR-SEP	616	651	675	130	699	734	520
Saguache Creek nr Saguache	APR-SEP	29	35	40	118	45	52	34
Alamosa Creek abv Terrace Reservoir	APR-SEP	64	72	78	113	84	92	69
La Jara Creek nr Capulin	MAR-JUL	6.63	8.94	10.50	122	12.06	14.37	8.60
Trinchera Water Supply	APR-SEP	16.4	23	28	93	33	40	30
Platoro Reservoir Inflow	APR-JUL	56	61	65	110	69	74	59
	APR-SEP	62	68	72	111	76	82	65
Conejos River nr Mogote	APR-SEP	195	213	225	112	237	255	201
San Antonio River at Ortiz	APR-SEP	6.5	8.7	10.5	66	12.4	15.5	16.0
Los Pinos River nr Ortiz	APR-SEP	67	73	78	108	83	89	72
Culebra Creek at San Luis	APR-SEP	12.1	17.4	21	105	25	30	20
Costilla Reservoir inflow	MAR-JUL	6.78	8.22	9.20	101	10.18	11.62	9.10
Costilla Creek nr Costilla	MAR-JUL	15.1	18.6	21	96	23	27	22

UPPER RIO GRANDE BASIN Reservoir Storage (1000 AF) - End of May					UPPER RIO GRANDE BASIN Watershed Snowpack Analysis - June 1, 2001			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CONTINENTAL	15.0	9.8	6.8	7.7	ALAMOSA CREEK BASIN	1	0	0
PLATORO	53.7	26.7	29.4	16.7	CONEJOS & RIO SAN ANTONIO	2	0	0
RIO GRANDE	51.0	30.6	13.8	23.5	CULEBRA & TRINCHERA CREEK	3	0	0
SANCHEZ	103.0	32.5	42.7	18.6	UPPER RIO GRANDE BASIN	3	7600	59
SANTA MARIA	45.0	12.3	10.7	11.5	TOTAL UPPER RIO GRANDE BA	10	7600	57
TERRACE	13.1	8.3	10.3	7.5				

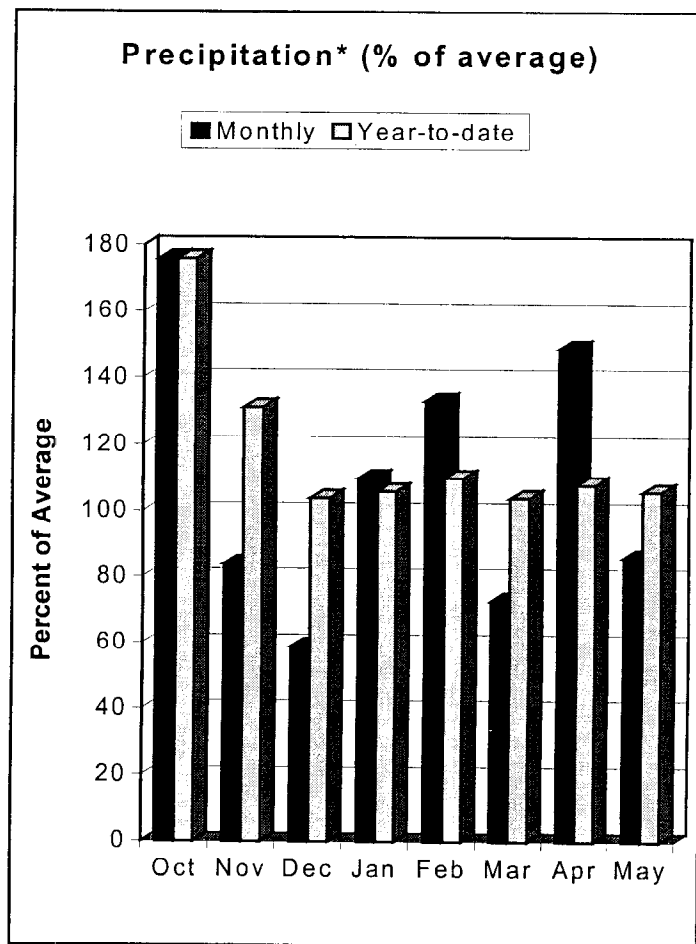
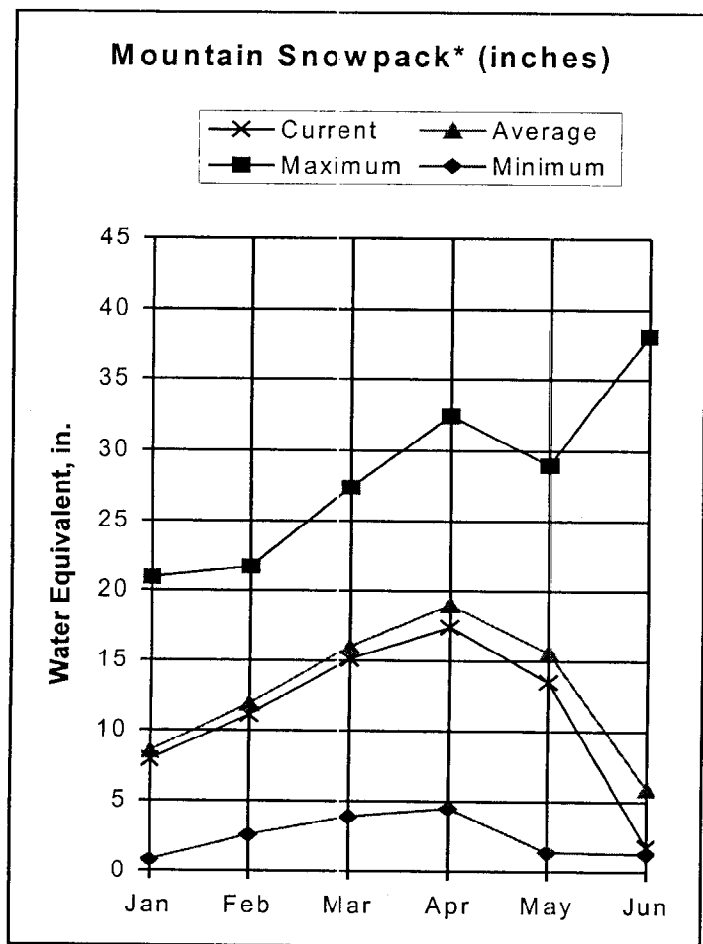
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The average is computed for the 1961-1990 base period.

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 (2) - The value is natural volume - actual volume may be affected by upstream water management.

SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS as of June 1, 2001



*Based on selected stations

Warm temperatures and below average precipitation have caused the snow at most of the snow measuring sites in these basins to melt away by June 1. Only 5 out of 16 SNOTEL sites have snow remaining on them, and those measurements make a basinwide percent of average of only 32%. Most of the remaining snow is in the San Juan Basin, which has 45% of average snow accumulation left. There is no measurable snow left in the Dolores and San Miguel basins. Precipitation during May was 86% of average, and the water year total is now 106% of average on June 1. The combined reservoir storage level for 6 major reservoirs in these basins has improved significantly since last month, and is 95% of average for this time of year. There is 87% of the storage there was last year at this time. The streamflow forecasts for the remaining runoff season are extremely variable depending on location and snowpack conditions. Forecasts range from only 29% of average at the Inlet to Gurley Reservoir, to 125% of average at the Inflow to Vallecito Reservoir.

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SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Streamflow Forecasts - June 1, 2001

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Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>							
		Chance Of Exceeding *							
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	30-Yr Avg. (1000AF)	
=====		=====		=====		=====		=====	
Dolores River at Dolores	APR-JUL	158	177	190	77	203	222	246	
McPhee Reservoir inflow	APR-JUL	182	205	220	78	235	258	283	
San Miguel River nr Placerville	APR-JUL	80	92	100	82	108	120	122	
Gurley Reservoir Inlet	JUN-JUL	1.22	1.54	1.75	29	2.49	3.57	6.00	
	JUNE			1.50	32			4.67	
	JULY			0.25	19			1.32	
Cone Reservoir Inlet	JUN-JUL	0.29	0.50	0.65	46	0.97	1.43	1.43	
	JUNE			0.50	48			1.04	
	JULY			0.15	40			0.38	
Lilylands Reservoir Inlet	JUN-JUL	0.49	0.73	0.89	78	1.05	1.29	1.14	
	JUNE			0.75	86			0.87	
	JULY			0.14	52			0.27	
Rio Blanco at Blanco Diversion	APR-JUL	44	52	57	106	62	70	54	
Navajo River at Oso Diversion	APR-JUL	51	61	68	105	75	85	65	
San Juan River nr Carracus	APR-JUL	281	344	390	102	439	516	382	
Piedra River nr Arboles	APR-JUL	234	249	260	119	271	286	219	
Vallecito Reservoir Inflow	APR-JUL	227	237	245	125	253	263	196	
Navajo Reservoir Inflow	APR-JUL	769	859	920	119	981	1071	772	
Animas River at Durango	APR-JUL	359	413	450	108	487	541	418	
Lemon Reservoir Inflow	APR-JUL	55	63	68	119	73	81	57	
La Plata River at Hesperus	APR-JUL	15.1	18.6	21	88	23	27	24	
Mancos River nr Mancos	APR-JUL	26	34	40	100	46	54	40	
	JUNE			12.0	88			13.7	
	JULY			3.00	65			4.60	

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SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Reservoir Storage (1000 AF) - End of May

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SAN MIGUEL, DOLORES, ANIMAS, AND SAN JUAN RIVER BASINS
Watershed Snowpack Analysis - June 1, 2001

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Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
GROUNDHOG	21.7	18.7	20.4	18.4	ANIMAS RIVER BASIN	7	0	19
JACKSON GULCH	10.0	10.0	9.9	9.1	DOLORES RIVER BASIN	4	0	0
LEMON	40.0	38.0	39.4	28.9	SAN MIGUEL RIVER BASIN	3	0	0
MCPHEE	381.2	303.5	363.0	361.0	SAN JUAN RIVER BASIN	3	5225	45
NARRAGUINNEP	19.0	18.2	18.4	18.0	TOTAL SAN MIGUEL, DOLORES	16	7325	32
VALLECITO	126.0	109.2	121.2	89.5	AN JUAN RIVER BASINS			

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In addition to the basin outlook reports, water supply forecast information for the Western United States is available from the Natural Resources Conservation Service and the National Weather Service monthly, January through May. The information may be obtained from the National Resources Conservation Service web page at <http://www.wcc.nrcs.usda.gov/water/quantity/westwide.html>.

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